

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A composition, comprising:
a particle chain having at least two connected particles and a link that connects the at least two connected particles, wherein:
the link is integrally formed with at least one of the at least two connected particles,
at least one of the at least two connected particles has an interior region with pores having a mean size a density of large pores and a surface region with pores having a mean size a density of large pores, and
the mean size of the density of large pores of the interior region of the at least one of the at least two connected particles is greater than the mean size of the density of large pores of the surface region of the at least one of the at least two connected particles.
2. (Original) The composition of claim 1, wherein each of the at least two connected particles has a diameter of from about ten microns to about 3,000 microns.
3. (Original) The composition of claim 1, wherein the particle chain has a restrained length of at most about 50 centimeters.
4. (Original) The composition of claim 1, wherein the particle chain has a restrained length of at least about one centimeter.
5. (Cancelled)

6. (Currently Amended) The composition of claim 1, wherein the ~~at least two connected particles are connected by a link having~~ has a length of at most about 50,000 microns.

7. (Currently Amended) The composition of claim 1, wherein the ~~at least two connected particles are connected by a link having~~ has a length of at least about one micron.

8. (Currently Amended) The composition of claim 1, wherein the ~~at least two connected particles are connected by a link having~~ has a width of at most about 0.01 inch.

9. (Currently Amended) The composition of claim 1, wherein the ~~at least two connected particles are connected by a link having~~ has a width of at least 0.001 inch.

10. (Currently amended) The composition of claim 1, wherein the ~~at least two connected particles are connected by a link having~~ has an aspect ratio of at most about 1,000.

11. (Currently amended) The composition of claim 1, wherein the ~~at least two connected particles are connected by a link having~~ has an aspect ratio of at most 25.

12. (Currently Amended) The composition of claim 1, wherein the ~~at least two connected particles are connected by a link having~~ has an aspect ratio of at least 0.001.

13. (Currently Amended) The composition of claim 1, wherein the ~~at least two connected particles are connected by a link and a ratio of the diameter of one of the at least two particles to a width of the link is at most about 100.~~

14. (Currently Amended) The composition of claim 1, wherein the ~~at least two connected particles are connected by a link and a ratio of the diameter of one of the at least two particles to a width of the link is at least about 0.5.~~

15. (Currently Amended) The composition of claim 1, wherein the ~~at least two connected particles are connected by a link comprising~~ comprises a polymer or a metal.

16. (Withdrawn) The composition of claim 1, wherein the at least two connected particles are connected by a link comprising a fiber.

17. (Currently Amended) The composition of claim 1, wherein the ~~at least two connected particles are connected by a link comprising~~ comprises a material that is different from a material of at least one of the particles.

18. (Cancelled)

19. (Currently Amended) The composition of claim 1, wherein the ~~at least two connected particles are connected by a link and the link is attached to at least one of the particles.~~

20. (Currently Amended) The composition of claim 1, wherein the ~~at least two connected particles are connected by~~ link is a polymer link that is grafted to the particles.

21. (Original) The composition of claim 1, wherein the at least two connected particles include a first particle comprising a first polymer and a second particle comprising a second polymer, and the first polymer is the same as the second polymer.

22. (Original) The composition of claim 1, wherein the at least two connected particles include a first particle comprising a first polymer and a second particle comprising a second polymer, and the first polymer is different from the second polymer.

23. (Original) The composition of claim 1, wherein the at least two connected particles comprise first and second particles, and a diameter of the first particle is the same as a diameter of the second particle.

24. (Original) The composition of claim 1, wherein the at least two connected particles comprise first and second particles, and a diameter of the first particle is different from a diameter of the second particle.

25. (Currently Amended) The composition of claim 1, wherein the composition further comprises a carrier fluid, and the particle chain is in the carrier fluid.

26. (Original) The composition of claim 25, wherein the carrier fluid comprises a saline solution.

27. (Original) The composition of claim 25, wherein the carrier fluid comprises a contrast agent.

28. (Original) The composition of claim 25, wherein the at least two connected particles have an arithmetic mean diameter of about 3,000 microns or less.

29. (Original) The composition of claim 25, wherein the at least two connected particles have an arithmetic mean diameter of about ten microns or more.

30. (Original) The composition of claim 1, wherein the particle chain has a two-dimensional structure.

31. (Original) The composition of claim 1, wherein the particle chain has a three-dimensional structure.

32-48. (Cancelled).

49. (New) The composition of claim 1, wherein the link has a length of at least about 500 microns.

50. (New) The composition of claim 1, wherein the link has a length of at least about 1,000 microns.

51. (New) The composition of claim 1, wherein the link has a length of at least about 5,000 microns.

52. (New) The composition of claim 1, wherein the link has a length of at least about 10,000 microns.

53. (New) The composition of claim 1, wherein the link has a length of at least about 30,000 microns.

54. (New) A composition, comprising:
a particle chain having at least two connected particles and a link that connects the at least two connected particles, wherein:
the particle chain comprises a material;
at least one of the at least two connected particles comprises the material;
the at least one of the at least two connected particles has an interior region with pores having a mean size and a surface region with pores having a mean size; and
the mean size of the pores of the interior region of the at least one of the at least two connected particles is greater than the mean size of the pores of the surface region of the at least one of the at least two connected particles.

55. (New) The composition of claim 54, wherein the material comprises a polymer.

56. (New) The composition of claim 55, wherein the polymer comprises PVA.

57. (New) The composition of claim 56, further comprising a carrier fluid, wherein the particle chain is in the carrier fluid.

58. (New) The composition of claim 55, further comprising a carrier fluid, wherein the particle chain is in the carrier fluid.

59. (New) The composition of claim 54, further comprising a carrier fluid, wherein the particle chain is in the carrier fluid.